UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Ex parte GHITA LANZENDORFER, ANGELIKA BORMANN, JENS NIELSEN, BIRGIT HARGENS, HEIDI RIEDEL, and STEPHANIE VON THADEN

Appeal No. 2006-1383
Application No. 10/025,065

ON BRIEF[1]

Before ADAMS, GRIMES, and GREEN, Administrative Patent Judges.

ADAMS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on the appeal under 35 U.S.C. § 134 from the examiner's final rejection of claims 1, and 3-8, which are all the claims pending in the application.

Claims 1 and 4 are illustrative of the subject matter on appeal and are reproduced below:

1. A cosmetic or dermatological emulsion of the oil-in-water type, comprising
   (i) up to 90% by weight of a water phase,
   (ii) 0.5% to 20% by weight of a lipid phase, based on the total weight of the preparation,

[1] Appellants waived their request for oral hearing. Paper received June 23, 2006. Accordingly, we considered this appeal on Brief.

(iii) up to 10% by weight of one or more emulsifiers, and
(iv) 0.2% to 0.3% by weight of one or more ammonium acryloyldimethyltaurates/vinylpyrrolidone copolymers.

4. The emulsion as claimed in claim 1, further comprising one or more dyes, coloring pigments, or a combination thereof.

The examiner relies on the following reference:

Löffler	6,489,395	Dec. 3, 2002

GROUNDS OF REJECTION

Claims 1, 3 and 6 stand rejected under 35 U.S.C. § 103 as being unpatentable over Löffler.

Claims 4, 5, 7 and 8 stand rejected under 35 U.S.C. § 103 as being unpatentable over Löffler in view of appellants' "admitted prior art".

We reverse the rejection of record. In addition, we encourage the examiner to consider the Other Issue section of this opinion and to take appropriate action.

DISCUSSION

Claims 1, 3 and 6

Claims 1, 3 and 6 stand rejected under 35 U.S.C. § 103 as being unpatentable over Löffler.

With reference to examples 1-7 of Löffler, the examiner finds (Answer, page 3) that Löffler teaches an oil-in-water composition comprising "69.10 - 81.90% water[2], 5 - 20% lipid phase such as Jojoba oil and mineral oil, 0.1 - 5% oligoester emulsifiers which may be up to 10%, and [0.6 - 0.7%] Aristoflex AVC. . . ." According to the examiner (id.), the only difference between Löffler and appellants' claimed invention, is that Löffler does not teach the use of "0.2 to 0.3% of Aristoflex AVC." Appellants do not dispute these findings. See Brief, page 4.

Appellants, however, part company with the examiner when the examiner asserts (Answer, page 3), "[i]t would have been obvious to a person of ordinary skill in the art at the time the invention was made to optimize and determine the particular amount of Aristoflex AVC in the composition, e.g. 0.2 to 0.3% of Aristoflex AVC." In contrast, appellants assert (Brief, page 4) that Löffler

> merely lists Aristoflex AVC as an ingredient in some examples, but nowhere discloses what it is, what it does, or why it is present. The description is totally silent about . . . (Aristoflex AVC). In the face of this void, there is absolutely no teaching or suggestion to reduce the amount to 0.2-0.3%. For there to be such a suggestion, there would have to at least be some disclosure of the reasons why Aristoflex was included in the first place, or of what it does. No one would be motivated to "select optimum parameters . . . to achieve a beneficial effect", as the Examiner contends, if they do not know what beneficial effect there is to be achieved, or what parameter is to be modified.

There is some merit to both sides of this argument, for the examiner is correct in that the "discovery of an optimum value of a result effective variable in a known process is ordinarily within the skill of the art," In re Boesch, 617 F.2d

---

[2] For clarity, we note that the emulsions taught by Löffler "may comprise 5 to 95% by weight . . . water." Löffler, column 3, lines 61-63.

272, 276, 205 USPQ 215, 219 (CCPA 1980) (citations omitted). Appellants, however, are equally correct in that our reviewing court has found an exception to this general rule where "the parameter optimized was not recognized to be a result effective variable," In re Antonie, 559 F.2d 618, 621, 195 USPQ 6, 8 (CCPA 1977).

Therefore, to resolve this issue, we must look to the function of Aristoflex AVC serves in Löffler's composition, and whether a person of ordinary skill in the art would have recognized that Aristoflex AVC is a result effective variable from the teachings of Löffler.

I. What purpose does Aristoflex AVC serve in Löffler's composition?

The examiner does not identify, and we find no disclosure in Löffler regarding the function of Aristoflex AVC in Löffler's disclosed compositions. In this regard, we note that Löffler's only specific disclosure of Aristoflex AVC is in examples 1-7. Therefore, we find ourselves in agreement with appellants (Brief, page 4), "[n]o person reading Löffler would have any idea of what the Aristoflex AVC does in his compositions. . . ."

II. Is Aristoflex AVC a results effective variable?

From the foregoing discussion it should be clear that there is no evidence on this record that the prior art relied upon by the examiner recognized that Aristoflex AVC has any particular effect on the compositions taught by Löffler, which according to Löffler (column 1, lines 23-24) are "emulsions comprising an

oligoester." As appellants point out (Brief, page 4), "[n]o person reading Löffler would have any idea of what the Aristoflex AVC does in his compositions, and would certainly have no reason to vary his amounts." We agree. Simply put, the examiner failed to meet her burden of presenting the evidence necessary to establish a prima facie case of obviousness.

Conclusion:

For the foregoing reasons we reverse the rejection of claims 1, 3 and 6 under 35 U.S.C. § 103 as being unpatentable over Löffler.

Claims 4, 5, 7 and 8

Claims 4, 5, 7 and 8 stand rejected under 35 U.S.C. § 103 as being unpatentable over Löffler in view of appellants' "admitted prior art".

Despite Löffler's disclosure that dyes may be added to the compositions disclosed therein (see column 4, lines 19-25, and column 5, lines 8-9), the examiner finds that Löffler "does not expressly disclose the compositions therein further comprising one or more dyes coloring pigments." Answer, page 4. Therefore, the examiner relies on appellants' specification to make up for this alleged deficiency in Löffler. Answer, bridging paragraph, pages 4-5.

This secondary evidence, however, fails to make up for Löffler's failure to teach a composition comprising 0.2% to 0.3% by weight of one or more ammonium acryloyldimethyltaurates/vinylpyrrolidone copolymers as is required by appellants' claimed invention. Accordingly, we reverse the rejection of claims

4, 5, 7 and 8 under 35 U.S.C. § 103 as being unpatentable over Löffler in view of appellants' "admitted prior art".

OTHER ISSUES

As discussed above, the evidence of record on appeal was deficient because it failed to establish why a person of ordinary skill in the art would add Aristoflex AVC to a composition. Without this knowledge, one would have no reason to "optimize" its amount in the composition taught by Löffler. Accordingly, upon receipt of the administrative file we encourage the examiner to take a step back and reconsider the invention together with the available prior art to determine why a person of ordinary skill in the art at the time of appellants' invention would include Aristoflex AVC in a composition such as that described by Löffler. For illustrative purposes, we direct the examiner's attention to Weihofen[3], which teaches the use of Aristoflex AVC as a thickener.

If after having an opportunity to review the administrative file together with the available prior art, the examiner is of the opinion that a rejection is necessary, the examiner should issue the appropriate rejection, clearly and articulately explaining the basis of the rejection and the evidence relied upon to support the position taken.

---

[3] Weihofen et al. (Weihofen), "Hydrafresh with the right polymer," Clariant, pages 32-33 (February 2001)

SUMMARY

The rejections of record are reversed.

Prior to taking any further action on the merits we encourage the examiner to consider the observations made in the "OTHER ISSUES" section and take appropriate action.

REVERSED

Donald E. Adams)
Administrative Patent Judge)
) BOARD OF PATENT
Eric Grimes)
Administrative Patent Judge) APPEALS AND
) INTERFERENCES
Lora M. Green)
Administrative Patent Judge)

DEA/jlb

CLARIANT CORPORATION
INTELLECTUAL PROPERTY DEPARTMENT
4000 MONROE ROAD
CHARLOTTE NC 28205

Notice of References Cited	Application/Control No. 10/025,065	Applicant(s)/Patent Under Reexamination Appeal No. 2006-1383	
	Examiner	Art Unit	Page of

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
	A	US-			
	B	US-			
	C	US-			
	D	US-			
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
X	U	Weihofen et al., "Hydrafresh with the right polymer," Clariant, pp. 32-33 (February 2001)
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

Today, creams and gels for skincare should not feel greasy or sticky, but fresh, light, and silky. Clariant chemists and process engineers aim for this feeling when they develop synthetic polymers.

"Hydrafresh" with the right polymer

Dr. Matthias Löffler and Roman Morschhäuser don't really fit into the target group of women's magazines. Nevertheless, such publications are compulsory reading for them, in addition to numerous scientific journals. They pay special attention to advertisements promising a fresh feeling or wonderfully silky skin. And they let the ads lure them into purchasing the products. Then they have a closer look at the flacons, crucibles, and little bottles and painstakingly study the lists of ingredients. Subsequently, they see if the product lives up to the promise. Löffler and Morschhäuser are cosmetics experts who work on developing new raw materials for the enormous cosmetics industry in the Personal Care research department of Clariant's Functional Chemicals division.

A current trend in skin care is reflected by newly coined terms such as "hydrafresh" and "hydroactive." The new words appear to be needed to adequately describe the properties of creams and lotions. "Melting textures that feel light and fresh are in demand today, because such rheology is directly associated with moistness and mild care," says Matthias Löffler. Here "hydrafresh" seems to be a suitable adjective. "Turning Point," a new product in L'Oréal's Plénitude care series, for example, possesses the desired melting texture. Just exactly what that means can be felt on the skin: The cream seems to

slowly melt away and has a pleasant silky feeling. It does not feel sticky or greasy.

Aristoflex® AVC is the secret behind the new lightness of creams in tubes and jars. Aristoflex AVC, a synthetic polymer based on amino-S acid, was developed by cosmetics researchers at Clariant. The polymer gives consistency to care products, or, as experts term it, is a rheology modifier. Creams and gels consist of around two-thirds water, coupled with a few percent oil, plant extracts, care components, and other additives, such as perfume. Oil-containing products are generally supplemented with emulsifiers in order to obtain oil-in-water emulsions. Without thickening agents, such a mixture would be as watery as milk, could only be spread on the skin with difficulty, and above all would not be stable. The oil would cream up after only a short time and destroy the valuable emulsion. But if small quantities of Aristoflex AVC are added – much less than one percent is sufficient – the viscosity increases drastically and a stable cream or lotion with an individually suited consistency emerges.

Another unique feature of Aristoflex AVC is that perfect emulsions can be produced without the use of emulsifiers. Such cream gels have a novel rheology and are ideal candidates for the light, melting textures in vogue today.

"With Aristoflex AVC, you could make vodka cut-proof," explains Matthias Löffler, giving a graphic example of the special capability of the new product. Unlike other thickening agents, Aristoflex is effective in mixtures that contain up to 80 percent alcohol – which is more than any good vodka possesses. This property gives one a competitive advantage, since

Light, melting textures are currently in vogue.

formulations with alcohol as a provider of freshness are in great demand. In addition, Aristoflex AVC is a highly suitable thickening agent for gels, in particular for the hairstyling gels very popular among young people. Apart from water and alcohol, these gels contain a so-called "styling polymer." And by adding very high proportions of alcohol one can produce a gel-like disinfecting agent for the skin, like those used in hospitals and doctors' offices.

The polymer has made an additional breakthrough with respect to the pH scale, which is used by chemists to measure how acidic or alkaline a substance is. The smaller the value, the more acidic the substance. Human skin, for instance, has a pH value of 5 or 6, and is therefore in the slightly acidic spectrum. Hence we speak of an acidic protective coating for the skin. Modern, mild skin-care products generally lie in this area. However, more and more cosmetics products are formulated with fruit acids or a-hydroxy acids. These products are taking the market by storm in the form of antiwrinkle or antiaging products. Due to their acidic ingredients these formulations have pH values of 4.5 to 4. At such pH values Aristoflex AVC, a polymer sulphonic acid, does not lose its thickening property, unlike rival products based on acrylic acid.

Formulations with fruit acids and **a-hydroxy acids** are used to counter skin aging.

Aristoflex AVC is a member of a polyester family based on amidosulphuric acid as the monomer building block. This monomer can be combined with a number of other monomer building blocks. The respective copolymers vary in length as well as structure (linear, branched, cross-linked). Thus the properties of Aristoflex polymers can be adapted to meet the needs of specific cosmetics application fields. Clariant has safeguarded this technology and applications with numerous patents, and considers itself to occupy a good position on the market.

"We know what a raw material for the cosmetics industry should look like," says Roman Morschhäuser, pointing to Clariant's many years of experience in the product category. "Meanwhile," he adds, "Clariant has a very good understanding of structural effect principles." But sensory effects, or the feeling on the skin, cannot be predicted and have to be tested on an individual basis. As a result, the research and development department has a small team that subjects every new product to a sensory test that it developed. To be able to discuss the feel of a cream, a new vocabulary was introduced and sensations on the skin compared. After all, a "silky feeling" should mean at least more or less the same thing to all the members of the team. "You can rely on our test team's assessment," says Matthias Löffler. "And," he adds, "this is an important prerequisite for gaining further shares of the cosmetics market, thanks to innovative polymers."

Dr. Rainer Weihofen, Corporate Communications, Clariant International AG, is a physicist and a journalist. **Annette Fischer** is a freelance photographer. She has produced several so-called "stills" for this magazine.